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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/534,340

05/10/2005

Albert Mehl

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7590

08/17/2009

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EXAMINER

LEWIS, RALPH A

ART UNIT

PAPER NUMBER

3732

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/534,340	<b>Applicant(s)</b> MEHL, ALBERT	
	<b>Examiner</b> Ralph A. Lewis	<b>Art Unit</b> 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,8-42,44,45 and 47-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 43 and 46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **Acknowledgement of Election**

Applicant's election in the response of November 18, 2008 without traverse of Species I is acknowledged.

Species I was set forth in the restriction requirement of March 27, 2008 as being directed to a "method of creating a tooth data bank by averaging a plurality of data sets." In the response applicant indicates that claims 1-20 and 43-56 correspond to the elected species and that claims 1 and 2 have been amended to correspond to the same species. It is noted that claims 4, 5, 8-20, 44, 45 and 47-56 are directed to methods of using the created data set and methods of manufacturing a prosthetic item using the electronic data set. These methods were identified in the restriction requirement as Species II and III. Accordingly, claims 4, 5, 8-20, 44, 45 and 47-56 are withdrawn (along with nonelected claims 21-42) as being directed to a nonelected species.

It is further noted that some of the presently elected claims (1-3, 6-7, 43 and 46) may be generic to other nonelected species and should a generic claim be allowed, then claims positively including the subject matter of the allowed generic claim will be considered.

### **Objections to the Specification**

The specification is objected to under 37 CFR 1.77(c) for lacking the section heading headings.

The references to the claims throughout the specification (e.g. page 8, lines 4, 8, 10, 14; page 9, lines 6, 7, 20) is objected to as not being in accordance with US practice. More particularly, when a patent is granted the claims are renumbered to exclude cancelled claims and include newly added claims, accordingly the claims referred to in the specification would no longer correspond to the actual claims of the allowed patent.

### **Rejections based on Prior Art**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6, 7, 43 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle et al (US 5,879,158).

Doyle et al disclose at column 7, lines 42+ the use of a "statistically average tooth" 122 having a defined size, shape and contour with a defined central axis B-B. Doyle et al do not explicitly disclose how the electronic data for the "statistically average tooth" is generated, however, one of ordinary skill in the art would have readily understood that such "statistically average tooth" data must by definition be generated by measuring the size, shape, and contours of a plurality of teeth, adding the dimensions together and then dividing the dimensions by the number of measured

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teeth. Doyle et al, do not explain how the size shape and contours of the plurality of teeth making up the data set for the “average tooth” are generated, however, they do disclose the use of laser scanning for generating the data of a tooth 120 to be compared to the statistically average tooth. To have used a laser scanning method to have generated the data for the size shape and contours of the plurality of teeth making up the data set for the average tooth in view of the Doyle et al teaching of such a method in generating data for a tooth to be compared to the average tooth would have been obvious to one of ordinary skill in the art. In regard to the claim limitations directed to “corresponding points and corresponding structures”, it is noted that such points in a digital laser scanning are inherently and automatically assigned in measuring the dimensions – e.g. the points along the edges of the tooth. Finally, it is noted that Doyle et al makes such average data available to compare with other measured teeth such as 120. In regard to claim 2, the Doyle et al determination of the size shape and contours of a statistically average tooth is deemed to meet the “principal component analysis” and “linear combination” limitations. In regard to claim 3, the determination of a standard deviation from a computed statistical average is a common statistical analysis, the generation of which in the Doyle et al would have been obvious to one of ordinary skill in the art.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712**. Fax (571) 273-8300. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Cris Rodriguez, can be reached at (571) 272-4964.

R.Lewis  
August 16, 2009

/Ralph A. Lewis/  
Primary Examiner, Art Unit 3732